INVENTOR SEARCH

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=> fil capl; d que nos l24
FILE 'CAPLUS' ENTERED AT 09:53:37 ON 23 DEC 2008
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FILE COVERS 1907 - 23 Dec 2008  VOL 149 ISS 26
FILE LAST UPDATED: 22 Dec 2008  (20081222/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE


L1             1 SEA FILE=CAPLUS SPE=ON  ABB=ON  US2006-584440/AP
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L18           17 SEA FILE=CAPLUS SPE=ON  ABB=ON  L16
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L20            4 SEA FILE=CAPLUS SPE=ON  ABB=ON  BLEGER F?/AU
L21            2 SEA FILE=CAPLUS SPE=ON  ABB=ON  MORDACQ F?/AU
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L24  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:569050  CAPLUS  Full-text
DOCUMENT NUMBER:          143:97254
TITLE:                    Process for preparation de
                          2-(n-alkyl)-3-(4-hydroxybenzoyl)benzofurans and
                          intermediates by halogenation of carboxybenzofuran
                          derivatives, Friedel-Crafts acylation with
                          alkoxybenzenes and dealkylation
INVENTOR(S):              Schouteeten, Alain; Bleger, Francois
                          ; Mordacq, Francoise; Piron, Jerome
```

PATENT ASSIGNEE(S): Clariant France, Fr.
SOURCE: Fr. Demande, 22 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2864536	A1	20050701	FR 2003-15398	20031224
FR 2864536	B1	20060317		
WO 2005066149	A1	20050721	WO 2004-IB4158	20041215
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1699772	A1	20060913	EP 2004-801395	20041215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1898226	A	20070117	CN 2004-80038285	20041215
JP 2007517012	T	20070628	JP 2006-546365	20041215
KR 2006111608	A	20061027	KR 2006-712489	20060622
NO 2006002936	A	20060922	NO 2006-2936	20060623
IN 2006CN02324	A	20070706	IN 2006-CN2324	20060626
US 20070155831	A1	20070705	US 2006-584440	20061129 <--
PRIORITY APPLN. INFO.:			FR 2003-15398 A	20031224
			WO 2004-IB4158 W	20041215

OTHER SOURCE(S): CASREACT 143:97254
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention is related to the preparation of benzofurans I [R = linear or branched alkyl; R1 = halo, NO2, linear or branched alkyl, alkoxy] and intermediates by halogenation of acids II [R1, R defined as above] in an organic solvent, Friedel-Crafts acylation of alkoxybenzenes of formula C6H5OR2 (III) [R2 = linear or branched alkyl] with acyl halides IV (X = halo) in the presence of a Lewis acid to V [R, R1, R2 defined as above] and its 2-alkoxy isomer, and dealkylation. The invention is also related to the preparation of II by heating VI [R1' = NO2; R4 = linear or branched alkyl] and its ketone tautomer in the presence of an acid catalyst. The advantages include absence of poisoned materials, higher yields and purities. For example, chlorination of 2-(n-butyl)-3-carboxy-5-nitrobenzofuran with SOCl2 in PhCl, acylation of anisole with acyl chloride in the presence of AlCl3, and demethylation over AlCl3 at 60° for 7 h gave a solid containing 99.5% I [R1 = 5-NO2, R = n-Bu] after purification Heating 3-(1-hydroxypentylidene)-5-nitro-2(3H)- benzofuran in the presence of acetic anhydride/H2SO4 for 2 h gave acid II (m.p. = 207°).

IT 141627-42-1P, 2-(n-Butyl)-3-(4-methoxybenzoyl)-5-nitrobenzofuran
856758-02-6P, 2-(n-Butyl)-3-carboxy-5-nitrobenzofuran

856758-03-7P, 2-(n-Butyl)-3-chlorocarbonyl-5-nitrobenzofuran
856758-04-8P, 2-(n-Butyl)-3-(2-methoxybenzoyl)-5-nitrobenzofuran
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; process for preparation de 2-(n-alkyl)-3-(4-hydroxybenzoyl)benzofurans and intermediates by halogenation of the corresponding carboxybenzofurans, Friedel-Crafts acylation with alkoxybenzenes and dealkylation)

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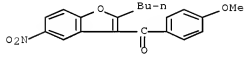
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



RN 856758-02-6 CAPLUS
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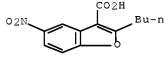

RN 856758-03-7 CAPLUS
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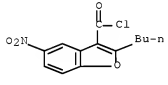
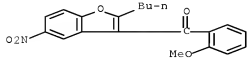
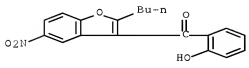


RN 856758-04-8 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(2-methoxyphenyl)- (CA INDEX NAME)

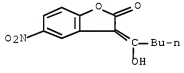


IT 856758-05-9P, 2-(n-Butyl)-3-(2-hydroxybenzoyl)-5-nitrobenzofuran
RL: BYP (Byproduct); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(process for preparation de 2-(n-alkyl)-3-(4-hydroxybenzoyl)benzofurans and

intermediates by halogenation of the corresponding carboxybenzofurans, Friedel-Crafts acylation with alkoxybenzenes and dealkylation)
RN 856758-05-9 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(2-hydroxyphenyl)- (CA INDEX NAME)



IT 349102-73-4, 3-(1-Hydroxypentylidene)-5-nitro-2(3H)-benzofuranone
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation de 2-(n-alkyl)-3-(4-hydroxybenzoyl)benzofurans and intermediates by halogenation of the corresponding carboxybenzofurans, Friedel-Crafts acylation with alkoxybenzenes and dealkylation)
RN 349102-73-4 CAPLUS
CN 2(3H)-Benzofuranone, 3-(1-hydroxypentylidene)-5-nitro- (CA INDEX NAME)



IT 141645-16-1P, 2-(n-Butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(product; process for preparation de 2-(n-alkyl)-3-(4-hydroxybenzoyl)benzofurans and intermediates by halogenation of the corresponding carboxybenzofurans, Friedel-Crafts acylation with alkoxybenzenes and dealkylation)
RN 141645-16-1 CAPLUS
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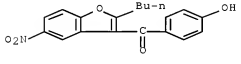


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:524688 CAPLUS Full-text
DOCUMENT NUMBER: 135:92535
TITLE: Process for the preparation of 3-(1-hydroxypentylidene)-5-nitro-3H-benzofuran-2-one and its ketone tautomeric form

3-(1-oxo-pentyl)-5-nitro-3H-benzofuran-2-one

INVENTOR(S): Schouteeten, Alain; Mordacq, Francoise

PATENT ASSIGNEE(S): Clariant (France) S.A., Fr.
SOURCE: Eur. Pat. Appl., 5 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1116719	A2	20010718	EP 2001-810033	20010115
EP 1116719	A3	20011024		
EP 1116719	B1	20050406		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2803846	A1	20010720	FR 2000-523	20000117
FR 2803846	B1	20020405		
TW 564246	B	20031201	TW 2001-90100495	20010110
HU 2001000146	A2	20020128	HU 2001-146	20010115
AT 292630	T	20050415	AT 2001-810033	20010115
ES 2238408	T3	20050901	ES 2001-810033	20010115
NO 2001000265	A	20010718	NO 2001-265	20010116
JP 2001233870	A	20010828	JP 2001-7465	20010116
KR 788529	B1	20071224	KR 2001-2333	20010116
CN 1306000	A	20010801	CN 2001-101296	20010117
CN 1204133	C	20050601		
US 20010012900	A1	20010809	US 2001-761452	20010117
US 6515147	B2	20030204		
IN 2003MA00433	A	20070330	IN 2003-MA433	20030528
US 39755	E1	20070731	US 2005-50627	20050203

PRIORITY APPLN. INFO.: FR 2000-523 A 20000117
US 2001-761452 E 20010117

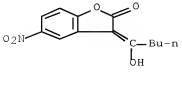
OTHER SOURCE(S): CASREACT 135:92535

AB 3-(1-Hydroxypentylidene)-5-nitro-3H-benzofuran-2-one, and to its ketone tautomeric form 3-(1-oxo-pentyl)-5-nitro-3H-benzofuran-2-one, are prepared in high yield and selectivity by the reaction of 5-nitro-3H-benzofuran-2-one at >30° with pentanoic anhydride and a salt of pentanoic acid, optionally in the presence of pentanoic acid, then the resulting reaction mixture is acidified (e.g., sulfuric acid) and the precipitated product (m.p. 164°, DSC) collected by filtration.

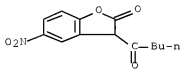
IT 349102-73-4P 349102-74-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for the preparation of 3-(1-hydroxypentylidene)-5-nitro-3H-benzofuran-2-one and its ketone tautomeric form 3-(1-oxo-pentyl)-5-nitro-3H-benzofuran-2-one)

RN 349102-73-4 CAPLUS

CN 2(3H)-Benzofuranone, 3-(1-hydroxypentylidene)-5-nitro- (CA INDEX NAME)



RN 349102-74-5 CAPLUS
CN 2(3H)-Benzofuranone, 5-nitro-3-(1-oxopentyl)- (CA INDEX NAME)



STRUCTURE SEARCH

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STRUCTURE FILE UPDATES:   22 DEC 2008  HIGHEST RN 1088779-12-7
DICTIONARY FILE UPDATES:  22 DEC 2008  HIGHEST RN 1088779-12-7

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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  conducting SmartSELECT searches.

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experimental property data in the original document.  For information
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http://www.cas.org/support/stngen/stndoc/properties.html


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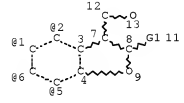


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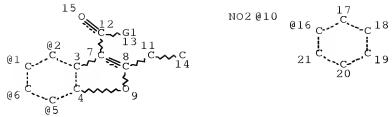

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STEREO ATTRIBUTES: NONE
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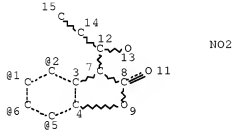

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STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 59 ITERATIONS 57 ANSWERS
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FILE COVERS 1907 - 23 Dec 2008 VOL 149 ISS 26
FILE LAST UPDATED: 22 Dec 2008 (20081222/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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L5              STR
L8          129 SEA FILE=REGISTRY SSS FUL L5
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L18          17 SEA FILE=CAPLUS SPE=ON  ABB=ON  L16


=> s l18 not l24
L25         15 L18 NOT L24    L24=INVENTOR SEARCH ANSWER SET

=> d ibib abs hitstr l25 1-15; fil hom

L25  ANSWER 1 OF 15  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2008:1399311  CAPLUS  Full-text
DOCUMENT NUMBER:          149:556432
TITLE:                    Process for preparation of
                          2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran
                          starting from 4-nitrophenol
INVENTOR(S):              Diouf, Ousmanne; Durand, Thierry; Lemeune, Stephane;
                          Marcoux, Jean-Francois; Frison, Natacha; Larquetoux,
                          Laurent; Folleas, Benoit
PATENT ASSIGNEE(S):       Finorga, Fr.
SOURCE:                   PCT Int. Appl., 9pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 French
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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     WO 2008139057        A2    20081120    WO 2008-FR472           20080404
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

FR 2914644 A1 20081010 FR 2007-2544 20070406

PRIORITY APPLN. INFO.: FR 2007-2544 A 20070406

OTHER SOURCE(S): CASREACT 149:556432

AB The invention is related to a process for the preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran (I), intermediate in the synthesis of cardiovascular agent dronedarone, by iodination or bromination of 4-nitrophenol with NBS or NIS in aqueous media in the presence of HBF4, followed by cyclization of o-iodo or o-bromophenol through a Sonogashira reaction with 1-hexyne in the presence of a N-base, catalytic amts. of Pd(II) salts or complexes and CuI, acylation of 2-(n-butyl)-5-nitrobenzofuran with 4-methoxybenzoic acid or its acid halide in the presence of a Lewis acid, and demethylation in the presence of pyridinium chloride. The invention allows preparation of I by a low polluting catalytic process in very good yields. Thus, iodination of 4-nitrophenol with NIS in MeCN in the presence of HBF4 in Et2O at -20° for 5 h, addition of Pd(PPh3)2Cl2 to a mixture containing 2-iodo-4-nitrophenol, DMF, 1-hexyne, NEt3 and CuI, heating at 65° for 36 h, acylation of 2-(n-butyl)-5-nitrobenzofuran with p-anisoyl chloride in the presence of AlCl3 in DCM and demethylation of 2-(n-butyl)-3-(4-methoxybenzoyl)-5-nitrobenzofuran in DCM in the presence of AlCl3 at reflux for 21 h gave I.

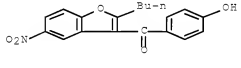
IT 141645-16-1P, 2-Butyl-3-(4-hydroxybenzoyl)-5-nitrobenzofuran

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran starting from 4-nitrophenol)

RN 141645-16-1 CAPLUS

CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)



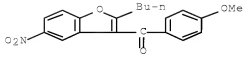
IT 141627-42-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran via acylation with 4-methoxybenzoic acid)

RN 141627-42-1 CAPLUS

CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



L25 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:1219885 CAPLUS Full-text
DOCUMENT NUMBER: 149:448197
TITLE: Process for preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran starting from 4-nitrophenol
INVENTOR(S): Diouf, Ousmanne; Durand, Thierry; Lemeune, Stephane; Marcoux, Jean Francois; Frison, Natacha; Larquetoux, Laurent; Folleas, Benoit
PATENT ASSIGNEE(S): Finorga, Fr.
SOURCE: Fr. Demande, 13pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2914644	A1	20081010	FR 2007-2544	20070406
WO 2008139057	A2	20081120	WO 2008-FR472	20080404

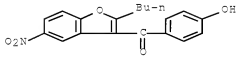
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: FR 2007-2544 A 20070406
OTHER SOURCE(S): CASREACT 149:448197

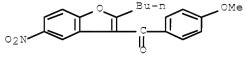
AB The invention is related to a process for the preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran (I), intermediate in the synthesis of cardiovascular agent dronedarone, by iodination or bromination of 4-nitrophenol with NBS or NIS in aqueous media in the presence of HBF4, followed by cyclization of o-iodo or o-bromophenol through a Sonogashira reaction with 1-hexyne in the presence of a N-base, catalytic amts. of Pd(II) salts or complexes and CuI, acylation of 2-(n-butyl)-5-nitrobenzofuran with 4-methoxybenzoic acid or its acid halide in the presence of a Lewis acid, and demethylation in the presence of pyridinium chloride. The invention allows preparation of I by a low polluting catalytic process in very good yields. Thus, iodination of 4-nitrophenol with NIS in MeCN in the presence of HBF4 in Et2O at -20° for 5 h, addition of Pd(PPh3)2Cl2 to a mixture containing 2-iodo-4-nitrophenol, DMF, 1-hexyne, NEt3 and CuI, heating at 65° for 36 h, acylation of 2-(n-butyl)-5-nitrobenzofuran with p-anisoyl chloride in the presence of AlCl3 in DCM and demethylation of 2-(n-butyl)-3-(4-methoxybenzoyl)-5-nitrobenzofuran in DCM in the presence of AlCl3 at reflux for 21 h gave I.

IT 141645-16-1P, 2-Butyl-3-(4-hydroxybenzoyl)-5-nitrobenzofuran

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran starting from 4-nitrophenol)
RN 141645-16-1 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)



IT 141627-42-1P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 2-(n-butyl)-3-(4-hydroxybenzoyl)-5-nitrobenzofuran via acylation with 4-methoxybenzoic acid)
RN 141627-42-1 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1420616 CAPLUS Full-text
DOCUMENT NUMBER: 148:54878
TITLE: Process for preparation of 2-butyl-3-(4-methoxybenzoyl)-5-nitrobenzofuran by reaction of 2-butyl-5-nitrobenzofuran using non-halogenated solvents in the reaction and/or extraction steps.
INVENTOR(S): Eklund, Lars
PATENT ASSIGNEE(S): Cambrex Karlskoga AB, Swed.
SOURCE: PCT Int. Appl., 16pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007140989	A2	20071213	WO 2007-EP4984	20070605
WO 2007140989	A3	20080717		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: GB 2006-11210 A 20060607

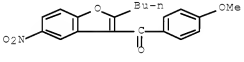
OTHER SOURCE(S): CASREACT 148:54878

AB A process for the production of 2-butyl-3-(4-methoxybenzoyl)-5-nitrobenzofuran by reaction of 2-butyl-5-nitrobenzofuran uses non-halogenated solvents in the reaction and/or extraction by crystallization of the product. Thus, reaction of 2-butyl-5-nitrobenzofuran with 4-methoxybenzoyl chloride in o-nitrotoluene in the presence of FeCl3 gave 82% 2-butyl-3-(4-methoxybenzoyl)-5-nitrobenzofuran.

IT 141627-42-1P, 2-Butyl-3-(4-methoxybenzoyl)-5-nitrobenzofuran
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of butylmethoxybenzoylnitrobenzofuran by reaction of butylnitrobenzofuran using non-halogenated solvents in the reaction and/or extraction steps)

RN 141627-42-1 CAPLUS

CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



L25 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:409442 CAPLUS Full-text

DOCUMENT NUMBER: 144:450603

TITLE: Process for acylation of (hydroxy)-containing aromatic compounds, particularly benzothiophenes, with aromatic hydroxycarboxylic acids in the presence of Lewis acids and halogenosilanes

INVENTOR(S): Bourgeois, Damien

PATENT ASSIGNEE(S): Rhodia Chimie, Fr.

SOURCE: Fr. Demande, 35 pp.
CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2877341	A1	20060505	FR 2004-11646	20041102
CA 2585714	A1	20060511	CA 2005-2585714	20051028
WO 2006048545	A1	20060511	WO 2005-FR2716	20051028

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

EP 1809617 A1 20070725 EP 2005-815207 20051028
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
IN 2007DN03286 A 20070831 IN 2007-DN3286 20070501
US 20080154049 A1 20080626 US 2008-666877 20080214
PRIORITY APPLN. INFO.: FR 2004-11646 A 20041102
WO 2005-FR2716 W 20051028
OTHER SOURCE(S): CASREACT 144:450603; MARPAT 144:450603

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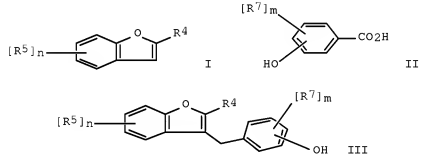
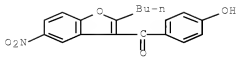


AB The invention is related to a process for the acylation of aromatic compds., particularly benzothiophenes I [R4 = alkyl, halogenophenyl, (un)substituted Ph; each R5 = independently H , NO2, alkyl, alkoxy, halo, CF3, etc.; n = 0-3], with aromatic hydroxycarboxylic acids II [each R7 = H or a substituent, especially alkyl, alkoxy, NO2, CN; m < 4], in the presence of a Lewis acid and a halogenosilane to give the ketones III. The advantages include acylation of hydroxy-containing substrates and/or agents without OH group protection, absence of toxic materials and simple procedure. Thus, successive addition of 4-hydroxybenzoic acid, chlorobenzene, methyltrichlorosilane, 2-butyl-5-nitrobenzofuran (IV) and FeCl3 at 23°, and stirring at 40° for 5 h gave 2-butyl-3-(4-hydroxybenzoyl)-5-nitrobenzofuran in 78% selectivity at 95% conversion of IV.

IT 141645-16-1P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(ketone product; process for acylation of aromatic compds., particularly benzothiophenes with carboxylic acids, especially aryl hydroxycarboxylic acids in presence of Lewis acids and halogenosilanes)

RN 141645-16-1 CAPLUS

CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:975672 CAPLUS Full-text
DOCUMENT NUMBER: 138:24636
TITLE: Preparation of 2-alkyl-3-acylbenzofurans from O-aryl oximes
INVENTOR(S): Kano, Hitoshi; Kogami, Kenji; Iida, Yukio
PATENT ASSIGNEE(S): Sumitomo Seika Chemicals Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002371076	A	20021226	JP 2001-179457	20010614

PRIORITY APPLN. INFO.: JP 2001-179457 20010614
OTHER SOURCE(S): CASREACT 138:24636; MARPAT 138:24636
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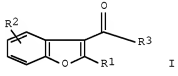
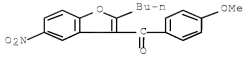


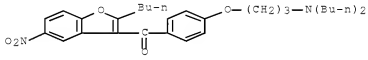
AB Title compds. I (R1 = alkyl; R2 = H, halo, cyano, nitro, formyl, alkyl, alkylcarbonyl, alkoxy, alkoxycarbonyl; R3 = alkyl, Ph, substituted Ph) are prepared by cyclization of R2C6H4ON:CR1Me in the presence of acids followed by acylation with R3COCl in the presence of Lewis acids. Thus, cyclization of O-(4-nitrophenyl)-2-butanone in EtOH the presence of H2SO4 gave, after treatment with 4-nitrobenzoyl chloride in the presence of SnCl4, 70.8% 2-ethyl-3-(4-nitrobenzoyl)-5-nitrobenzofuran.

IT 141627-42-1P 141645-23-0P 478158-83-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 2-alkyl-3-acylbenzofurans from O-aryl oximes by cyclization and acylation)

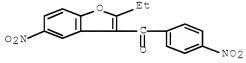
RN 141627-42-1 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



RN 141645-23-0 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-(dibutylamino)propoxy]phenyl]- (CA INDEX NAME)



RN 478158-83-7 CAPLUS
CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-nitrophenyl)- (CA INDEX NAME)



L25 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:465950 CAPLUS Full-text
DOCUMENT NUMBER: 137:33204
TITLE: 2-Butyl-3-(4-[3-(dibutylamino)propoxy]benzoyl)-5-nitrobenzofuran hydrochloride and preparation thereof
INVENTOR(S): Biard, Michel
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048078	A1	20020620	WO 2001-FR3900	20011210
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2817865	A1	20020614	FR 2000-16069	20001211

FR 2817865	B1	20050218			
CA 2429268	A1	20020620	CA 2001-2429268		20011210
AU 2002017227	A	20020624	AU 2002-17227		20011210
EP 1351907	A1	20031015	EP 2001-270513		20011210
EP 1351907	B1	20061115			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
BR 2001016065	A	20031028	BR 2001-16065		20011210
JP 2004515536	T	20040527	JP 2002-549615		20011210
HU 2005000981	A2	20060328	HU 2005-981		20011210
AT 345319	T	20061215	AT 2001-270513		20011210
CN 1295200	C	20070117	CN 2001-820378		20011210
ES 2276741	T3	20070701	ES 2001-270513		20011210
IN 2003DN00816	A	20061229	IN 2003-DN816		20030526
US 20040010032	A1	20040115	US 2003-433639		20030604
US 6846936	B2	20050125			
MX 2003PA05223	A	20040420	MX 2003-PA5223		20030611
HK 1055944	A1	20070518	HK 2003-108257		20031113
IN 2008DN01185	A	20080509	IN 2008-DN1185		20080211
IN 2008DN01265	A	20080425	IN 2008-DN1265		20080213
PRIORITY APPLN. INFO.:			FR 2000-16069	A	20001211
			WO 2001-FR3900	W	20011210
			IN 2003-DN816	A3	20030526

OTHER SOURCE(S): CASREACT 137:33204; MARPAT 137:33204

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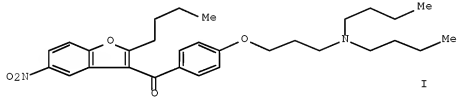


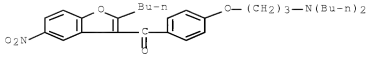
I

AB A process for the synthesis of 2-butyl-3-(4-[3-(dibutylamino)propoxy]benzoyl)-5-nitro-benzofuran (I) hydrochloride and use of I in the synthesis of dronedarone hydrochloride were disclosed. 4-[3-(Dibutylamino)propoxy]benzoyl chloride was used to acylate 2-butyl-5-nitrobenzofuran (C6H5Cl, FeCl3, 0°→22°C, 1.5 h) to give title compound I after neutralization of the hydrochloride salt. Reduction of I (EtOH, 3.4 atm H2, PtO, 20 min) followed by treatment with MsCl/Et3N in CH2Cl2 provided dronedarone. Compared to prior art, the current method avoids the environmental burden of excessive use of aluminum chloride in the acylation step.

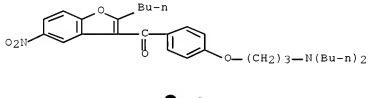
IT 141645-23-0P 437651-47-3P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; process for the synthesis of 2-(butyl)-3-(4-[3-(dibutylamino)propoxy]benzoyl)-5-nitro-benzofuran hydrochloride and conversion to dronedarone)

RN 141645-23-0 CAPLUS

CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-(dibutylamino)propoxy]phenyl]- (CA INDEX NAME)

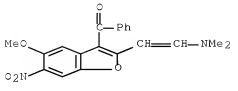


RN 437651-47-3 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-(dibutylamino)propoxy]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

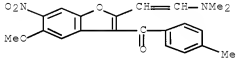


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

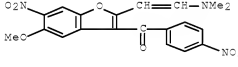
L25 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:700546 CAPLUS Full-text
DOCUMENT NUMBER: 134:4829
TITLE: Synthesis of 2-dimethylamino-3-hetaryl-5-hydroxybenzofurans by the Nenitzescu route from nitro-containing enamines of the benzofuran series
AUTHOR(S): Mukhanova, T. I.; Alekseeva, L. M.; Granik, V. G.
CORPORATE SOURCE: The State Science Center of the Russian Federation "NIOPIK", Moscow, 103787, Russia
SOURCE: Chemistry of Heterocyclic Compounds (New York)(Translation of Khimiya Geterotsiklicheskikh Soedinenii) (2000), 36(4), 410-415
CODEN: CHCCAL; ISSN: 0009-3122
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:4829
AB Enamines of the benzofuran series which contain nitro groups in the benzene ring of benzofuran or in 3-benzoyl substituent react with benzoquinone to form 2-dimethylamino-3-(substituted benzo-2-furyl)-5-hydroxybenzofurans.
IT 308796-99-8P 308797-00-4P 308797-01-5P 308797-03-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 2-dimethylamino-3-hetaryl-5-hydroxybenzofurans by the Nenitzescu route from nitro-containing enamines of the benzofuran series)
RN 308796-99-8 CAPLUS
CN Methanone, [2-[2-(dimethylamino)ethenyl]-5-methoxy-6-nitro-3-benzofuranyl]phenyl- (CA INDEX NAME)



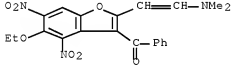
RN 308797-00-4 CAPLUS
CN Methanone, [2-[2-(dimethylamino)ethenyl]-5-methoxy-6-nitro-3-benzofuranyl](4-methylphenyl)- (CA INDEX NAME)



RN 308797-01-5 CAPLUS
CN Methanone, [2-[2-(dimethylamino)ethenyl]-5-methoxy-6-nitro-3-benzofuranyl](4-nitrophenyl)- (CA INDEX NAME)



RN 308797-03-7 CAPLUS
CN Methanone, [2-[2-(dimethylamino)ethenyl]-5-ethoxy-4,6-dinitro-3-benzofuranyl]phenyl- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

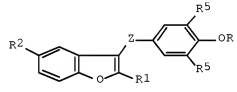
L25 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:393883 CAPLUS Full-text
DOCUMENT NUMBER: 125:58304
ORIGINAL REFERENCE NO.: 125:11205a,11208a
TITLE: Preparation of 3-benzoylbenzofurans as thyroid hormone antagonists
INVENTOR(S): Mellin, Charlotta
PATENT ASSIGNEE(S): Karo Bio Ab, Swed.
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9605190	A1	19960222	WO 1995-EP3214	19950811
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2197185	A1	19960222	CA 1995-2197185	19950811
AU 9533455	A	19960307	AU 1995-33455	19950811
AU 694551	B2	19980723		
EP 775129	A1	19970528	EP 1995-929866	19950811
EP 775129	B1	19981021		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10504297	T	19980428	JP 1995-507025	19950811
AT 172460	T	19981115	AT 1995-929866	19950811
ES 2123287	T3	19990101	ES 1995-929866	19950811
US 5854282	A	19981229	US 1997-776924	19970407

PRIORITY APPLN. INFO.: GB 1994-16219 A 19940811
WO 1995-EP3214 W 19950811

OTHER SOURCE(S): MARPAT 125:58304
GI



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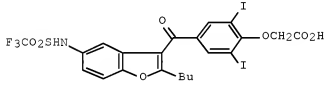
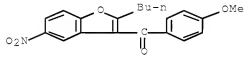


II

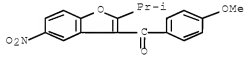
AB Title compds. (I; R = CH2CO2H; R1 = alkyl; R2 = NHSO2R3, NHCOR3, NHCONHR3; R3 = CF3, alkyl, C6H4R4-4; R4 = OH, F, alkoxy, NO2; R5 = Br or iodo; Z = CH2 or CO) were prepared Thus, the Wittig reagent prepared from 2-hydroxy-5-nitrobenzyl bromide was cyclocondensed with BuCOCl and the product acylated with 4-(MeO)C6H4COCl to give I (R = Me, R1 = Bu, R2 = NO2, R5 = H, Z = CO) which was converted in 5 steps to title compound II. Data for inhibition by I of triiodothyronine-induced expression of alkaline phosphatase by thyroid hormone reporter cells were given in graphic form.

IT 141627-42-1P 141627-44-3P 141645-16-1P
141645-18-3P 178239-69-5P 178239-70-8P
178239-81-1P 178239-82-2P 178239-88-8P
178239-89-9P 178239-93-5P 178239-94-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-benzoylbenzofurans as thyroid hormone antagonists)

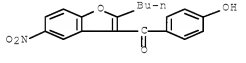
RN 141627-42-1 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



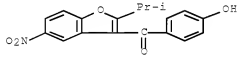
RN 141627-44-3 CAPLUS
CN Methanone, (4-methoxyphenyl)[2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



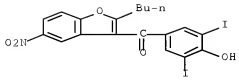
RN 141645-16-1 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)



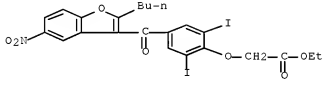
RN 141645-18-3 CAPLUS
CN Methanone, (4-hydroxyphenyl)[2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



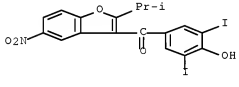
RN 178239-69-5 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-hydroxy-3,5-diiodophenyl)- (CA INDEX NAME)



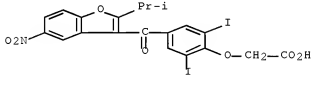
RN 178239-70-8 CAPLUS
CN Acetic acid, 2-[4-[(2-butyl-5-nitro-3-benzofuranyl)carbonyl]-2,6-diiodophenoxy]-, ethyl ester (CA INDEX NAME)



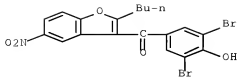
RN 178239-81-1 CAPLUS
CN Methanone, (4-hydroxy-3,5-diiodophenyl)[2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



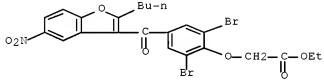
RN 178239-82-2 CAPLUS
CN Acetic acid, 2-[2,6-diiodo-4-[[2-(1-methylethyl)-5-nitro-3-benzofuranyl]carbonyl]phenoxy]- (CA INDEX NAME)



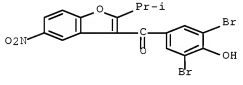
RN 178239-88-8 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(3,5-dibromo-4-hydroxyphenyl)- (CA INDEX NAME)



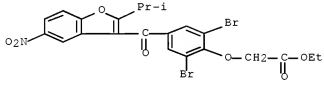
RN 178239-89-9 CAPLUS
CN Acetic acid, 2-[2,6-dibromo-4-[(2-butyl-5-nitro-3-benzofuranyl)carbonyl]phenoxy]-, ethyl ester (CA INDEX NAME)



RN 178239-93-5 CAPLUS
CN Methanone, (3,5-dibromo-4-hydroxyphenyl)[2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



RN 178239-94-6 CAPLUS
CN Acetic acid, 2-[2,6-dibromo-4-[[2-(1-methylethyl)-5-nitro-3-benzofuranyl]carbonyl]phenoxy]-, ethyl ester (CA INDEX NAME)



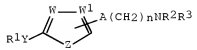
L25 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:426336 CAPLUS Full-text
DOCUMENT NUMBER: 117:26336
ORIGINAL REFERENCE NO.: 117:4747a,4750a
TITLE: Preparation of benzofurans, benzothiophenes, indoles, and indolizines as cardiovascular agents
INVENTOR(S): Gubin, Jean; Lucchetti, Jean; Inion, Henri; Chatelain, Pierre; Rosseels, Gilbert; Kilenyi, Steven

PATENT ASSIGNEE(S): Sanofi SA, Fr.; Societe Anon. Sanofi-Pharma N. V.
SOURCE: Eur. Pat. Appl., 81 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 471609	A1	19920219	EP 1991-402201	19910806
EP 471609	B1	19961127		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
FR 2665444	A1	19920207	FR 1990-10036	19900806
FR 2665444	B1	19921127		
CA 2047773	A1	19920207	CA 1991-2047773	19910724
CA 2047773	C	20000912		
US 5223510	A	19930629	US 1991-736580	19910726
ZA 9105934	A	19930331	ZA 1991-5934	19910729
IL 98991	A	19951208	IL 1991-98991	19910729
AU 9181428	A	19920213	AU 1991-81428	19910730
AU 648569	B2	19940428		
FI 9103704	A	19920207	FI 1991-3704	19910802
FI 114914	B1	20050131		
NO 9103033	A	19920207	NO 1991-3033	19910805
NO 179042	B	19960415		
NO 179042	C	19960724		
BR 9103354	A	19920505	BR 1991-3354	19910805
JP 04316554	A	19921106	JP 1991-195431	19910805
JP 2795759	B2	19980910		
PL 168044	B1	19951230	PL 1991-291334	19910805
RU 2095357	C1	19971110	RU 1991-5001351	19910805
CZ 288527	B6	20010711	CZ 1991-2427	19910805
SK 283527	B6	20030911	SK 1991-2427	19910805
HU 62280	A2	19930428	HU 1991-2610	19910806
HU 218271	B	20000728		
AT 145645	T	19961215	AT 1991-402201	19910806
ES 2096639	T3	19970316	ES 1991-402201	19910806
KR 190673	B1	19990601	KR 1991-13726	19910806

PRIORITY APPLN. INFO.: FR 1990-10036 A 19900806
CS 1991-2427 A 19910805

OTHER SOURCE(S): MARPAT 117:26336
GI



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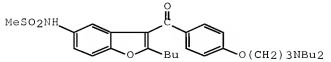


II

AB Title compds. I [R1 = various (un)substituted benzofuryl, benzothienyl, indolyl, and indolizinyl groups; Y = CO, CH(OR4); R2 = H, alkyl; R3 = alkyl,

certain (hetero)aryl and (hetero)aralkyl; or R2R3 = alkylene or alkenylene optionally substituted by Ph or interrupted by O, NH, alkyl- or phenylimino, or N; R4 = H, alkyl, acyl; A = O, S, NHCO; when W = W' = CH or N, Z = O or S; or W, W', and Z form (un)substituted benzene nucleus; n = 1-5] were prepared For example, 2-butyl-5-nitrobenzofuran (preparation given) underwent Friedel-Crafts reaction with anisoyl chloride and SnCl4 to give 83.5% 3-(4-methoxybenzoyl) derivative, which was subjected to demethylation by AlCl3 (90.1%), etherification with Cl(CH2)3NBu2 (88.76%), hydrogenation of the NO2 group (95.28%), and N-methanesulfonylation (61.1%) to give title compound II, isolated as the HCl salt. At 10 mg/kg in anesthetized rats, II increased the duration of action potential by 60%. A formulation, 35 syntheses of I, approx. 100 addnl. listed I, addnl. action potential data, and antiadrenergic data for some I, are given. I are also said to be useful as potentiators of anticancer agents.

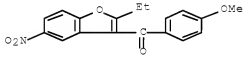
IT 90908-76-2P 98873-72-4P 141627-42-1P
141627-44-3P 141645-10-5P 141645-16-1P
141645-18-3P 141645-20-7P 141645-23-0P
141645-26-3P 141645-27-4P 141645-28-5P
141645-29-6P 141645-34-3P 141645-36-5P
141645-37-6P 141645-38-7P 141645-39-8P
141645-41-2P 141645-45-6P 141645-46-7P
141645-48-9P 141645-50-3P 141671-41-2P
141671-42-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, in preparation of cardiovascular agents)

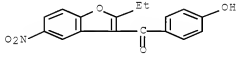
RN 90908-76-2 CAPLUS

CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



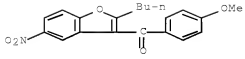
RN 98873-72-4 CAPLUS

CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)

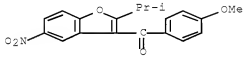


RN 141627-42-1 CAPLUS

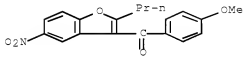
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)



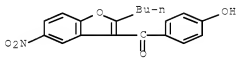
RN 141627-44-3 CAPLUS
CN Methanone, (4-methoxyphenyl)[2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



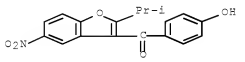
RN 141645-10-5 CAPLUS
CN Methanone, (4-methoxyphenyl)(5-nitro-2-propyl-3-benzofuranyl)- (CA INDEX NAME)



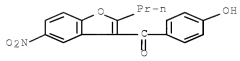
RN 141645-16-1 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)



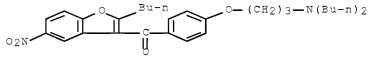
RN 141645-18-3 CAPLUS
CN Methanone, (4-hydroxyphenyl)[2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



RN 141645-20-7 CAPLUS
CN Methanone, (4-hydroxyphenyl)(5-nitro-2-propyl-3-benzofuranyl)- (CA INDEX NAME)



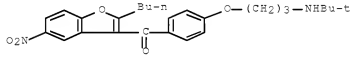
RN 141645-23-0 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-(dibutylamino)propoxy]phenyl]- (CA INDEX NAME)



RN 141645-26-3 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-[(1,1-dimethylethyl)amino]propoxy]phenyl]-, ethanedioate (1:1) (CA INDEX NAME)

CM 1

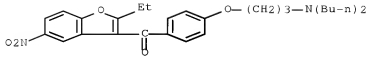
CRN 141645-25-2
CMF C26 H32 N2 O5



CM 2

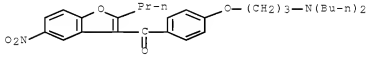
CRN 144-62-7
CMF C2 H2 O4

RN 141645-27-4 CAPLUS
CN Methanone, [4-[3-(dibutylamino)propoxy]phenyl](2-ethyl-5-nitro-3-benzofuranyl)-, hydrochloride (1:1) (CA INDEX NAME)

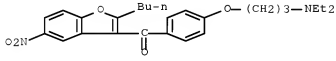


● HCl

RN 141645-28-5 CAPLUS
CN Methanone, [4-[3-(dibutylamino)propoxy]phenyl](5-nitro-2-propyl-3-benzofuranyl)- (CA INDEX NAME)

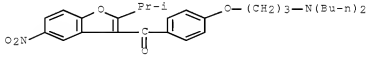


RN 141645-29-6 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-(diethylamino)propoxy]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

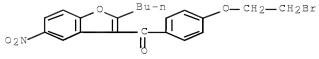


● HCl

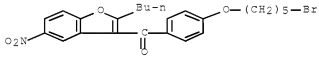
RN 141645-34-3 CAPLUS
CN Methanone, [4-[3-(dibutylamino)propoxy]phenyl][2-(1-methylethyl)-5-nitro-3-benzofuranyl]- (CA INDEX NAME)



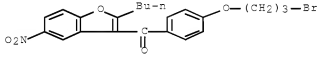
RN 141645-36-5 CAPLUS
CN Methanone, [4-(2-bromoethoxy)phenyl](2-butyl-5-nitro-3-benzofuranyl)- (CA INDEX NAME)



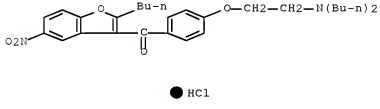
RN 141645-37-6 CAPLUS
CN Methanone, [4-[(5-bromopentyl)oxy]phenyl](2-butyl-5-nitro-3-benzofuranyl)-
(CA INDEX NAME)



RN 141645-38-7 CAPLUS
CN Methanone, [4-(3-bromopropoxy)phenyl](2-butyl-5-nitro-3-benzofuranyl)-
(CA INDEX NAME)



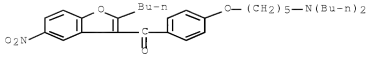
RN 141645-39-8 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[2-
(dibutylamino)ethoxy]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



RN 141645-41-2 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[[5-
(dibutylamino)pentyl]oxy]phenyl]-, ethanedioate (1:1) (CA INDEX NAME)

CM 1

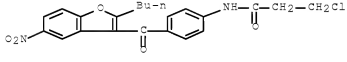
CRN 141645-40-1
CMF C32 H44 N2 O5



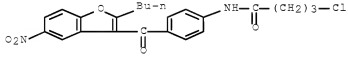
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 141645-45-6 CAPLUS
CN Propanamide, N-[4-[(2-butyl-5-nitro-3-benzofuranyl)carbonyl]phenyl]-3-chloro- (CA INDEX NAME)



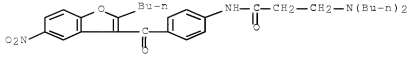
RN 141645-46-7 CAPLUS
CN Butanamide, N-[4-[(2-butyl-5-nitro-3-benzofuranyl)carbonyl]phenyl]-4-chloro- (CA INDEX NAME)



RN 141645-48-9 CAPLUS
CN Propanamide, N-[4-[(2-butyl-5-nitro-3-benzofuranyl)carbonyl]phenyl]-3-(dibutylamino)-, ethanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 141645-47-8
CMF C30 H39 N3 O5



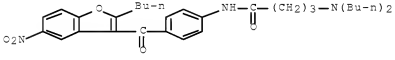
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 141645-50-3 CAPLUS
CN Butanamide, N-[4-[(2-butyl-5-nitro-3-benzofuranyl)carbonyl]phenyl]-4-(dibutylamino)-, ethanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 141645-49-0
CMF C31 H41 N3 O5



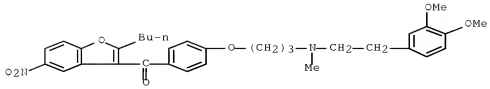
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 141671-41-2 CAPLUS
CN Methanone, (2-butyl-5-nitro-3-benzofuranyl)[4-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]propoxy]phenyl]-, ethanedioate (1:1) (CA INDEX NAME)

CM 1

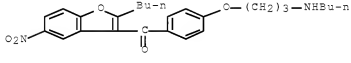
CRN 141671-40-1
CMF C33 H38 N2 O7



CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 141671-42-3 CAPLUS
CN Methanone, [4-[3-(butylamino)propoxy]phenyl](2-butyl-5-nitro-3-benzofuranyl)- (CA INDEX NAME)



L25 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:151553 CAPLUS Full-text
DOCUMENT NUMBER: 116:151553
ORIGINAL REFERENCE NO.: 116:25645a,25648a
TITLE: Preparation of benzofuran derivatives as drugs for excretion of uric acid
INVENTOR(S): Tomiyama, Takeshi; Tomiyama, Itaru; Shirai, Tadashi; Wakabayashi, Shuichi; Futamura, Masayuki; Ichikawa, Senju
PATENT ASSIGNEE(S): Kotobuki Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03261778	A	19911121	JP 1990-59500	19900309
JP 2873599	B2	19990324		
PRIORITY APPLN. INFO.:			JP 1990-59500	19900309
OTHER SOURCE(S):	MARPAT 116:151553			

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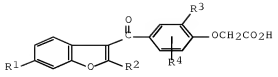


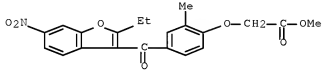
I

AB The title derivs. I (R1 = alkyl, alkyloxy, halo, OH, etc.; R2 = alkyl; R3, R4 = H, alkyl) were prepared Reaction of 2-ethyl-6-chlorobenzofuran with 4-methoxycarbonylmethyloxy-3-methylbenzoyl chloride in CH2Cl2 containing SnCl4, followed by saponification with NaOH, acidification and workup, gave I (R1 = Cl, R2 = Et, R4 = H, R3 = Me) (II). I are useful in the treatment of gout. In rats dosed with phenol red and II, the amount of phenol red in the blood is 120.9% of the amount of phenol red in controls. (The clearance of phenol red from the blood is decreased by agents promoting the excretion of uric acid.).

IT 139718-02-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of drug for promoting uric acid excretion)

RN 139718-02-8 CAPLUS

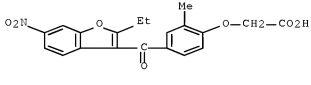
CN Acetic acid, 2-[4-[(2-ethyl-6-nitro-3-benzofuranyl)carbonyl]-2-methylphenoxy]-, methyl ester (CA INDEX NAME)



IT 139717-94-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as drug for uric acid excretion)

RN 139717-94-5 CAPLUS

CN Acetic acid, 2-[4-[(2-ethyl-6-nitro-3-benzofuranyl)carbonyl]-2-methylphenoxy]- (CA INDEX NAME)



L25 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:575270 CAPLUS Full-text

DOCUMENT NUMBER: 103:175270

ORIGINAL REFERENCE NO.: 103:28131a,28134a

TITLE: Antibacterial activity and polarographic half-wave

reduction potential of 2-nitrobenzo[b]furans

AUTHOR(S): Ohishi, Yoshitaka; Kuriyama, Kiyoshi; Doi, Yoshio; Nakanishi, Teruo

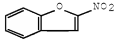
CORPORATE SOURCE: Kyoto Res. Inst., Kaken Pharm. Co., Ltd., Kyoto, 607, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(7), 2854-61
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



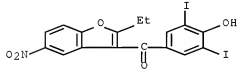
I

AB The antibacterial activities of a series of derivs. of 2-nitrobenzo[b]furan (I) against Staphylococcus aureus, Bacillus subtilis, Escherichia coli, Salmonella typhimurium, Salmonella enteritidis, Shigella flexneri, Proteus vulgaris, or Pseudomonas aeruginosa were determined in vitro. Most of the compds. showed considerable activities against the bacteria except P. vulgaris and P. aeruginosa and 1 of them was .apprx.30-fold as active as nitrofurantoin against S. aureus. Mono- and dimethoxy derivs. were the most active. The polarog. half-wave potentials (E1/2) of the derivs. of I at pH 7 were in a narrow range of -0.450 ± 0.04 V, whereas the E1/2 values of regioisomeric nitrobenzo[b]furans were more neg. (-0.560 to -0.726 V). In the case of derivs. of I, substituent(s) on the benzene ring had little influence on the reduction potential of the 2-nitro group, whereas the antibacterial activity depended markedly on the substituent group(s).

IT 29735-83-9 98873-72-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bacteria sensitivity to)

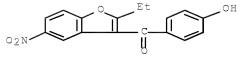
RN 29735-83-9 CAPLUS

CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-hydroxy-3,5-diiodophenyl)- (CA INDEX NAME)



RN 98873-72-4 CAPLUS

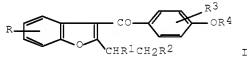
CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-hydroxyphenyl)- (CA INDEX NAME)



L25 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:454904 CAPLUS Full-text
DOCUMENT NUMBER: 101:54904
ORIGINAL REFERENCE NO.: 101:8525a,8528a
TITLE: Benzarone derivatives and their use in treating venous and arterial ailments
INVENTOR(S): Grote, Heinfried; Sandrock, Klaus
PATENT ASSIGNEE(S): Fed. Rep. Ger.
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

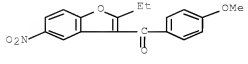
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3342624	A1	19840329	DE 1983-3342624	19831125
PRIORITY APPLN. INFO.:			DE 1983-3342624	19831125

OTHER SOURCE(S): MARPAT 101:54904
GI

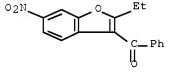


I

AB The title compds. (I; R-R3 = H, alkoxy, acyloxy, OH, SO3H; R4 = H, acyl, HSO2), more effective than benzarone (II) (no data), were prepared Thus, II was acetylated to give 92% I (R-R3 = H, R4 = Ac). This was brominated with N-bromosuccinimide to give 100% I (R = R2 = R3 = H, R1 = Br, R4 = Ac). This was treated with CsOAc to give 100% I (R = R2 = R3 = H, R1 = OAc, R4 = Ac), which was saponified to give 48.8% I (R = R2 = R3 = R4 = H, R1 = OH).
IT 90908-76-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of)
RN 90908-76-2 CAPLUS
CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-methoxyphenyl)- (CA INDEX NAME)

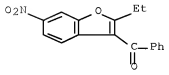


L25 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1974:505428 CAPLUS Full-text
DOCUMENT NUMBER: 81:105428
ORIGINAL REFERENCE NO.: 81:16679a,16682a
TITLE: Nitro derivatives of biological interest. IX. Synthesis of 2-nitramino pyrimidines from chromones and benzofurans
AUTHOR(S): Pene, Cecile; Hubert-Habart, Michel; Royer, Rene
CORPORATE SOURCE: Fond. Curie, Inst. Radium, Paris, Fr.
SOURCE: European Journal of Medicinal Chemistry (1974), 9(2), 202-4
CODEN: EJMCA5; ISSN: 0223-5234
DOCUMENT TYPE: Journal
LANGUAGE: French
GI For diagram(s), see printed CA Issue.
AB Nitraminopyrimidines I (R = H, NO2; R1 = H, Et, Ph, NH2) were prepared in 56-99% yield by treating the benzofurans II (R2 = CHO, CH(OAc)2, COEt, Bz, CN) with nitroguanidine. III (R1 = H, Ph; R3 = H, Me) similarly were prepared from the chromones IV. Treatment of I and III with N2H4 gave 2-hydrazinopyridines, which with NaNO2 gave either 2-azidopyrimidines or tetrazolopyrimi-dines.
IT 42901-90-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitroguanidine)
RN 42901-90-6 CAPLUS
CN Methanone, (2-ethyl-6-nitro-3-benzofuranyl)phenyl- (CA INDEX NAME)

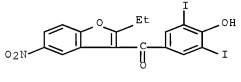


L25 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1973:505183 CAPLUS Full-text
DOCUMENT NUMBER: 79:105183
ORIGINAL REFERENCE NO.: 79:17058h,17059a
TITLE: Nitro derivatives of biological interest. VI. Synthesis of 5-(2-hydroxy-4-nitrophenyl)pyrimidines from nitro derivatives of benzofurans substituted in the 3-position by an electroattractive group
AUTHOR(S): Hubert-Habart, Michel; Pene, Cecile; Bastian, Gerard; Royer, Rene
CORPORATE SOURCE: Serv. Chim., Fond. Curie-Inst. Radium, Paris, Fr.
SOURCE: Chimica Therapeutica (1973), 8(3), 314-18
CODEN: CHTPBA; ISSN: 0009-4374
DOCUMENT TYPE: Journal
LANGUAGE: French
GI For diagram(s), see printed CA Issue.
AB Pyrimidines I (R = H, Me, Et, Ph, NH2; R1 = NH2, Me) were prepared in 70-90% yield and II (X = O, S) in 9-99% yield by nitrating the benzofurans III (R2 = CHO, Ac, COEt, COPh, CN; R3 = H) in 43-60% yield and treating III (R3 = NO2) with R1C(:NH)NH2 or CX(NH2)2.
IT 42901-90-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 42901-90-6 CAPLUS
CN Methanone, (2-ethyl-6-nitro-3-benzofuranyl)phenyl- (CA INDEX NAME)



L25 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1970:516689 CAPLUS Full-text
DOCUMENT NUMBER: 73:116689
ORIGINAL REFERENCE NO.: 73:18989a,18992a
TITLE: Inhibitory action of benzofuran compounds on 5'-AMP deaminase and adenosine deaminase
AUTHOR(S): Nakanishi, Teruo; Saeki, Toru
CORPORATE SOURCE: Res. Lab., Kakenyaku-Kako Co., Ltd., Japan
SOURCE: Seikagaku (1970), 42(6), 286-90
CODEN: SEIKAQ; ISSN: 0037-1017
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The inhibitory action of benzofuran derivs. on 5'-AMP deaminase (I) and adenosine deaminase (II) was investigated by using a number of synthetic compds. Introduction of carboxyl or hydroxyl groups increased the inhibitory action on I, but no pronounced effect of the substituent was observed on II. No common feature in structure seems to exist for the inhibition of these 2 deaminases.
IT 29735-83-9
RL: BIOL (Biological study)
(adenylate deaminase inhibition by)
RN 29735-83-9 CAPLUS
CN Methanone, (2-ethyl-5-nitro-3-benzofuranyl)(4-hydroxy-3,5-diiodophenyl)- (CA INDEX NAME)



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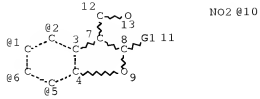


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L9              STR
```
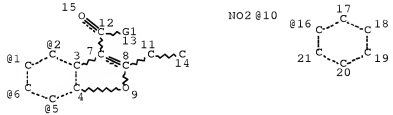
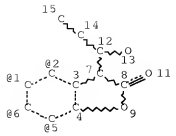




```
VAR G1=OH/X/16
VPA 10-1/2/5/6 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE
L11             STR
```




```
VPA 10-1/2/5/6 U
NODE ATTRIBUTES:
CONNECT IS E3  RC AT  12
CONNECT IS E1  RC AT  13
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L16          57 SEA FILE=REGISTRY SUB=L8 SSS FUL (L9 OR L11)

100.0% PROCESSED      59 ITERATIONS                          57 ANSWERS
SEARCH TIME: 00.00.01




     (FILE 'HOME' ENTERED AT 09:40:20 ON 23 DEC 2008)

     FILE 'CAPLUS' ENTERED AT 09:40:37 ON 23 DEC 2008
                E US2006-584440/APPS
L1             1 SEA SPE=ON  ABB=ON  US2006-584440/AP
                D SCAN
                SEL RN

     FILE 'REGISTRY' ENTERED AT 09:41:11 ON 23 DEC 2008
L2             9 SEA SPE=ON  ABB=ON  (100-66-3/BI OR 108-90-7/BI OR 141627-42-1/
                BI OR 141645-16-1/BI OR 349102-73-4/BI OR 856758-02-6/BI OR
                856758-03-7/BI OR 856758-04-8/BI OR 856758-05-9/BI)
                D SCAN
L3              STR
L4             6 SEA SSS SAM L3
                D SCAN
L5              STR L3
L6             5 SEA SSS SAM L5
L7          2417 SEA SSS FUL L5 EXTEND
L8           129 SEA SSS FUL L5
                SAVE TEMP L8 CHA440FULL/A
L9              STR L5
L10            0 SEA SSS SAM L9
L11             STR L5
L12            0 SEA SSS SAM L11
L13            0 SEA SUB=L8 SSS SAM (L9 OR L11)
```

```
L14           7 SEA SPE=ON  ABB=ON  L8 AND L2
L15          59 SEA SUB=L8 SSS FUL (L9 OR L11) EXTEND
L16          57 SEA SUB=L8 SSS FUL (L9 OR L11)
                SAVE TEMP L16 CHA440SUB/A
L17           7 SEA SPE=ON  ABB=ON  L16 AND L2

     FILE 'CAPLUS' ENTERED AT 09:51:39 ON 23 DEC 2008
L18          17 SEA SPE=ON  ABB=ON  L16
L19           0 SEA SPE=ON  ABB=ON  SHOUTTEETEN A?/AU
L20           4 SEA SPE=ON  ABB=ON  BLEGER F?/AU
L21           2 SEA SPE=ON  ABB=ON  MORDACQ F?/AU
L22          67 SEA SPE=ON  ABB=ON  PIRON J?/AU
                D BIB L1
L23          37 SEA SPE=ON  ABB=ON  SCHOUTEETEN A?/AU
L24           2 SEA SPE=ON  ABB=ON  (L1 OR L19 OR L20 OR L21 OR L22 OR L23)
                AND L18

     FILE 'CAPLUS' ENTERED AT 09:53:37 ON 23 DEC 2008
                D QUE NOS L24
                D IBIB ABS HITSTR L24 1-2

     FILE 'REGISTRY' ENTERED AT 09:53:57 ON 23 DEC 2008
                D STAT QUE L16

     FILE 'CAPLUS' ENTERED AT 09:53:57 ON 23 DEC 2008
                D QUE NOS L18
L25          15 SEA SPE=ON  ABB=ON  L18 NOT L24
                D IBIB ABS HITSTR L25 1-15

     FILE 'HOME' ENTERED AT 09:54:16 ON 23 DEC 2008
                D STAT QUE L16

=>
```